




## Open Legislative Study Recommendations

This paper contains VITA's responses to the synopsis of past legislative studies on information technology provided to the ITIB by Mr. Kucharski at the Board's June 1, 2004 planning session.

	<b>Develop a biennial State Strategic Plan for Technology that sets forth State IT project priorities based on agency strategic plans and an analysis of statewide or multi-agency project priorities.</b>	<b>27</b>
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Source: JLARC Report – Review of Information Technology Systems Development, January 2003

**Recommendation 27:** *The Secretary of Technology, with the assistance of the Chief Information Officer, should develop a biennial State Strategic Plan for Technology that sets forth State information technology project priorities based on agency technology strategic plans and an analysis of statewide or multi-agency project priorities by the Chief Information Officer.*

### **Response:**

The Secretary of Technology developed a Strategic Plan for Technology in 2002. The Strategic Plan for Technology, the Enterprise (Architecture) Business Strategies, and CIO IT Strategic Planning Guidance served as guidance to agencies for development of their Agency IT Strategic Plans (ITSP) for the 2004-2006 Budget Biennium.


Agency IT strategic plans are now entered into a common on-line application (CATSPA) developed to automate and facilitate the processing of strategic planning information and preparation of Code mandated reports. Each agency identifies planned technology investments, both projects and procurements, and, at least annually, reports how the planned investments support agency core business activities, key initiatives, or critical issues. Evaluation of agency planned investments for CIO approval includes the strategic alignment of the project or procurement with Commonwealth initiatives, and an initial assessment of the benefit to the Commonwealth.

As part of the PMD review of agency ITSP's, specific collaboration opportunities, and enterprise opportunities are identified and reported. Agencies must address collaboration efforts for projects identified as "collaboration opportunities" when seeking ITIB development approval for any major IT project. To date, enterprise solutions under development resulting from the identified collaboration opportunities include an enterprise licensing project and an enterprise GIS solution.

Agency IT Strategic Plans also provide input to development of the annual September 1 "Recommended Technology Investment Projects (RTIP) Report" to the Governor and General Assembly. PMD, utilizing the CATSPA information system, is currently preparing the second annual RTIP report for approval by the ITIB.

Upcoming efforts to improve IT strategic planning include:

- Promulgation of an IT Strategic Planning and Portfolio Management Standard, which will establish detailed standards for Commonwealth technology strategic planning (currently promulgated in the annual CIO strategic planning guidance), is targeted for the second quarter of FY2005.
- In FY2005, VITA PMD will aggressively pursue the implementation of an enterprise project management (portfolio) tool set that will better support project governance, oversight, and (Dashboard) reporting.

	<b>Establish an information clearinghouse that collects development experiences and best practices and explore other areas where the State can provide useful resources to agencies developing information systems.</b>	<b>25</b>
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Source: JLARC Report – Review of Information Technology Systems Development, January 2003

**Recommendation 25:** *The Chief Information Officer should establish an information clearinghouse that includes information collected on State agency development experiences and best practices, and should explore other areas in which the State can provide useful resources to assist agencies in the development of information systems. The Chief Information Officer should also establish a program for the exchange of excess computer hardware and software licenses.*

**Response:**


An information clearinghouse is available on the Project Manager Development Program Website, at: <http://165.176.249.155/itTrain/pmDev/PrjMgmtClearingHouse.cfm>, to provide a repository for best practices and lessons learned from state agency project experience. The Project Manager Development Program has announced the site and has requested input from project managers. To date, agencies have not responded to PMD solicitations for input. Resource constraints within PMD have limited efforts in this area.

The Project Management Website and the Project Manager Development Program Website both provide useful resources, including templates and corresponding instructions, for project management activities during all phases of the project life-cycle, PMD staff continues to consult with agencies in the development of information for the information clearinghouse.

Upcoming efforts to improve the information clearinghouse include:

- The CPM Standard, scheduled for promulgation in September 2004, will require agencies to complete a project closeout report, including identification of lessons learned and best practices. Information provided in the closeout reports will provide input to the information clearinghouse.
- PMD will evaluate other options for soliciting information for the clearinghouse based upon staff availability.

Excess computer hardware and software licenses will be managed, including redistribution, as part of the transformation phase of the technology consolidation project. Any centralization and consolidation of hardware and applications will be identified during that phase of the project.

	<b>Develop statewide IT architecture and related systems standards.</b>	<b>26</b>
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Source: JLARC Report – Review of Information Technology Systems Development, January 2003

***Recommendation 26:*** *The Departments of Technology Planning and Information Technology, at the direction of the Secretary of Technology, should collaboratively develop a statewide information technology architecture and a related set of systems standards.*

**Response:**

The Policy, Practice, and Architecture (PPA) Division of the Strategic Management Services Directorate is continuing the development of the enterprise architecture technical domains and the corresponding information technology policies, standards and guidelines previously started by the Department of Technology Planning. Four technical domains reports (Middleware, Platform, Security, and Network) have been developed. Corresponding policies and standards are in effect and PPA staff is currently working on developing ITRM policies, standards and guidelines for the recently approved Platform Domain report.

The COV Enterprise Architecture will also include technical domains for Database, Information, Application and Systems Management, as well as, an Enterprise Business Architecture.

	<b>Establish e-commerce information technology standards.</b>	<b>7</b>
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Source: APA Report – E-Commerce Report, November 2000

***Recommendation 7:*** *The Secretary of Technology must establish information technology guidelines and standards for agencies to follow when implementing e-commerce. He must communicate the minimum acceptable guidelines on which agencies can build their e-commerce systems. For example, if agencies must provide encryption for securing credit card payments by citizens, then this must be contained in the guidelines. Further, if the Secretary believes there must be encryption interoperability between agencies, then he should select a standard encryption technique.*

**Response:**

Electronic commerce refers to the general exchange of goods and services via the Internet. Electronic commerce also is a term for all kinds of business that are established electronically especially over the Internet. This includes both electronic sale (internet shops) and B2B transactions, i.e. business between two companies.

All necessary guidance required for state agencies to implement electronic commerce in the form policies, standards, guidelines, and best practices have been and will continue to be developed as VITA works toward completing the Commonwealth's Enterprise Architecture.


**APA Status Information on E-Commerce Recommendation** - The Auditor of Public Accounts provided the following status concerning the e-commerce recommendation:

*VITA released a series of technical domain reports to include reports on middleware, network security, and platform architectures in May 2001, with a revision to the platform architectures in March 2004. These reports communicate the Commonwealth's strategic direction, but agencies are not required to comply with the recommendations in the reports. Generally these reports provide information about various technologies and classify them as obsolescent, transitional, strategic, or emerging. In December 2001 VITA issued a middleware standard, networking, telecommunications and cabling standard, and an information technology security standard. Agencies are required to comply with standards and the standards describe the minimum technical requirements that selected technologies must meet. However, these standards must be reviewed and revised if they are expected to keep up with the fast pace of technology.*

**Response:**

As part of VITA's information technology investment oversight, agency strategic plans, projects, and all technology requests for procurement are reviewed for compliance with the enterprise architecture.

We agree that it is important that the necessary resources are made available to ensure the Enterprise Architecture components, including the corresponding policies, standards, guidelines, and best practices are kept current with evolving technology and the business of state government.

	<b>Establish a baseline set of information systems development standards</b>	<b>9</b>
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Source: JLARC Report – Review of Information Technology Systems Development, January 2003

**Recommendation 9:** *We recommend that the Secretary of Technology establish a baseline set of information systems development standards and best practices for the state agencies and institutions of higher education.*

*Our review of independent financial systems found the following:*

- Agencies and institutions develop independent systems because they require encumbrance accounting, detailed revenue/receivable management, and analysis of real-time and historical data, which is not available in CARS.*
- Agencies and institutions have spent or have budgeted to spend in excess of \$556 million dollars to replace or implement new financial systems within the past five years.*

- *Software expenses are one of the smallest of all implementation cost components, with consulting, networking, and hardware representing the majority of the expenses.*
- *PeopleSoft and Oracle have been the predominant software vendors used by agencies; however, institutions use many different software vendors.*

*We recommend that the Secretary establish a baseline set of information systems development standards and best practices for agencies and institutions to follow. Following a standard framework to manage software development should allow agencies and institutions to complete information technology projects on time, within budget, and with agreed-to functionality.*

*This recommendation is based on the following findings:*

- *No standards and best practices exist for systems development projects.*
- *The Department of Technology Planning appoints oversight committees for projects costing more than one million dollars. However, these committees evaluate development projects based on their best judgment, not formal standards.*
- *A consistent method of accumulating costs for systems implementation projects does not exist.*
- *Lack of standards and best practices result in modifications to software that increase implementation complexity, often resulting in the termination of the systems development project.*

*In 2003 VITA issued a project management selection and training standard that establishes the minimum qualifications and training for project managers of Commonwealth IT projects. Also in 2003 they issued Interim Procedures for the Initiation and Approval of Major and Non-major Information Technology Projects. Finally, in April 2004 VITA's Project Management Office issued a draft Project Management Standard that they plan to release shortly. This standard describes practices adopted by the ITIB and the Project Oversight Committee for the review and approval of IT Projects as well as describes the Project Management Offices' standards and expectations.*

*There still exist concerns about project oversight as the Project Management Office expects to use the Dashboard as a tool to monitor project progress. The Dashboard is a self-reporting tool that does not contain all Commonwealth IT projects. Further, users are often untimely in updating the Dashboard and they may be unmotivated to report negative results. The Project Management Office has acknowledged that Dashboard has shortcomings and is working to improve its effectiveness.*

### **Response:**

The VITA Project Management Division (PMD), under the direction of the Commonwealth IT Investment Board (ITIB) and CIO, has made significant progress in addressing the recommendations made by JLARC in their January 2003 report and improving the overall management of IT investments, including major and non-major (systems development) projects. Accomplishments include:

- *Promulgation and implementation of a comprehensive Commonwealth Technology Management (CTM) Policy and supporting standards and guidelines--The CTM Policy, Technology Management Glossary, Interim (CIO Directed) Procedures for the Initiation*

and Approval of Major and Non-major IT Projects, Project Management Standard (to be published in September, 2004), and Project Management Guideline collectively establish a clear process, appropriate standard procedures, templates, and tools for the life-cycle management of technology investment projects. Comprehensive information about Commonwealth project management is available at the VITA Project Management Website: <http://165.176.249.155/projects/pmd.cfm>

- *Implementation of Commonwealth Project Management (CPM) governance and oversight throughout the life-cycle of IT projects*--A comprehensive governance structure and process, that implements Code mandated responsibilities assigned to the ITIB, CIO, Agency Internal Oversight Committees, and the Project Management Division, is in place, documented in the Commonwealth Technology Management Policy and supporting standards, and guidelines. The continuation of Secretariat Oversight Committees, the Cabinet business owners of major technology investments, provides a mandated governance structure for the elevation and resolution of project issues that cannot be resolved at agency level.

To insure that current governance and oversight supporting tools, including Dashboard evaluations of major projects, provide accurate information about the actual performance of projects, the CTM Policy requires project managers of major IT projects to implement independent verification and validation (IV&V) strategies. The Project Management Standard is intended to reinforce the current IV&V requirement and to establish more detailed standards for agency implementation of IV&V, including regular reporting of IV&V results to the agency, proponent Secretary, PMD, CIO, and ITIB.


Further, PMD is preparing to implement, pending ITIB approval, IV&V as a standard, consistent VITA service to agencies, including the definition of minimum reporting requirements, statement of work standardization, and the identification of preferred sourcing options. In addition to the use of IV&V to improve oversight and Dashboard reporting, PMD recently completed an internal audit of the Dashboard. The audit has identified both immediate and long-term actions that must be accomplished to sustain and make the Dashboard a viable management tool. Pending implementation of the IV&V service, results of the audit will be provided to agencies for their information and appropriate short-term action to correct Dashboard reporting deficiencies.

- *Implementation of a Project Manager Development Program (PMDP):* The Commonwealth Project Manager Selection and Training Standard, which established the Commonwealth PMDP, was developed and implemented in 2003. The PMDP is a comprehensive program for qualifying (including the documentation of project management experience), training, testing, and mentoring technology project managers. The program also provides mandatory training for project sponsors and project managers on the established Commonwealth project management policies, standards and guidelines. The PMDP Website provides information and resources for PMDP participants and other interested parties and establishes an environment for sharing of experiences, best practices, lessons learned, and related project management information: <http://165.176.249.155/ittrain/pmdev/pmdev.cfm>.

Planned Commonwealth project management actions and enhancements include:

- Implementation of follow-up actions to address deficiencies in Dashboard reporting, identified in the recently completed Dashboard audit conducted by PMD, is targeted for the first quarter of FY2005.

- Promulgation of the Commonwealth Project Management Standard is scheduled for September 2004 and the associated implementation of detailed procedures for the (CTM Policy mandated) independent verification and validation (IV&V) of projects is targeted for the second quarter of FY2005.

	<b>Develop a standard for the consistent accumulation of project costs and improve the capture of those costs</b>	<b>10</b>
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Source: JLARC Report – Review of Information Technology Systems Development, January 2003

**Recommendation 10:** *As noted in our report “Review of Financial System Implementation” dated November 2001, the Secretary of Technology has not developed any standard for the consistent accumulation of costs for systems development projects. Without a consistent method for accumulating project costs, it is impossible to know how much a system actually costs the Commonwealth and whether the Governor, Legislature, and agency management should continue to fund its development.*

*We understand that the Secretary of Technology and the Department of Technology Planning are working to define project costs in conjunction with their Project Dashboard development, a self-reporting project management tool. However, the Secretary has not issued a standard that describes the types of costs that agencies must consider as part of a systems development and how to capture the information. We recommend that the Secretary develop and issue a standard to improve the capture of systems development costs and improve information for decision-makers.*

*The Dashboard does contain an area that captures project cost, however the information is self-reported by the agencies and the cost elements are not consistently complete. Further, we found that the Dashboard only contains a percentage of the actual IT projects on-going in the Commonwealth. The Project Management Office has acknowledged that Dashboard needs enhancements and plans to improve its effectiveness.*

*In September 2003 VITA issued the standard, “Procedures for the Review and Approval of Technology Procurements.” This standard defines project cost as including the cost of internal staff. In addition VITA issued a Project Management Guideline that recommends agencies include the cost of internal staff labor as part of the project cost.*

**Response:**

Current Commonwealth project management documentation (project charter, project proposal, project closeout report, and supporting templates defined in the Commonwealth Project Management Guideline), required for project development approval and subsequent expenditure reporting, standardizes cost elements captured for IT projects. PMD and VITA, in coordination with the Department of Planning and Budget (DPB) and the Department of Accounts (DOA), have updated the Commonwealth Accounting and Reporting System (CARS) codes used to capture IT and related IT project expenditures and mapped the CARS information to project cost elements in current project management documentation.

PMD has been allocated a set of “project codes” to utilize with major IT projects for the tracking of actual (against planned) project expenditures, as reported to CARS. Implementation of the tracking of actual project expenditures in CARS is complicated,

however, by unique agency financial systems that are not presently programmed to support project code reporting. PMD, in cooperation with DPB and DOA, intends to pilot project code reporting in FY2005 to determine whether current enterprise systems will support project cost tracking without requiring significant system changes.

Pending validation of the viability of tracking project expenditures through the use of CARS project coding, the reporting of planned and actual cost information for major IT projects will remain dependant on self-reporting by agencies.

Planned Commonwealth project management actions and enhancements for project cost tracking include:

- Assignment of project codes to a select number of (new start) major IT projects, beginning July 1, 2004, to test the capture of project costs in CARS.
- Implementation of a project cost estimation tool, as part of the next change to the current Commonwealth Project Management Guideline, to standardize project cost estimation, targeted for the second quarter of FY2005.
- Enhancements to the Major IT Project Status Reporting Dashboard cost categories to reflect more recently published CPM standards and guidelines, targeted for the second quarter of FY2005.